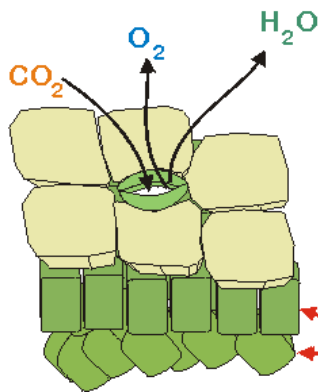


Lesson 5 - Water movement in plants



Stomata - openings on the under side of leaves

Guard cells - control the opening and closing of the stomata

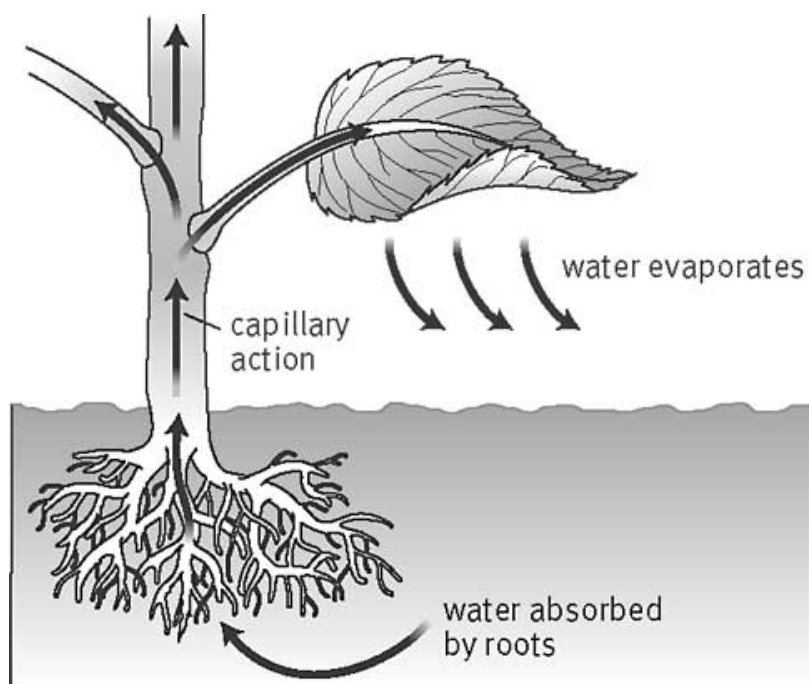


Step 1 - water moves into the roots by OSMOSIS

Step 2 - water can then shoot upward due to CAPILLARY ACTION (water ability to move upward in tiny spaces)

Step 3 - water can stick to the sides of the xylem cells and not flow back down - called ADHESION

Step 4/5 - water droplets have the ability to stick together (COHESION) and will pull each other along as a tree sweats (TRANSPIRATION)



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Plant Responses page 639

Define the following:

tropism - a plants response to its environment

gravitropism - response to gravity

phototropism - response to light

thigmotropism - response to touch

photoperiodism - response to the number of
daylight hours

dormancy - "sleeping state" for plants - during
the winter months

Plants can also be classified by the length
of their life cycle

a) if their complete life cycle last for 1
year = annual

b) if their life cycle last 2 years = biennial

c) if their life cycle goes on and on for
several years = perennial